IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
IJARSCT
Impact Factor: 6.252
Volume 2, Issue 1, December 2022

Simulation Study of Desiccant Dehumidifier: A Review

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Abstract: *Traditional cooling systems based on vapor compression are ineffective in humid climates due to their inability to remove moisture below the dew point of the conditioned air, which involves additional effort in the form of an electrical power supply to run vapor compressors. A solid desiccant cooling system reduces powerusage while simultaneously providing fresh and clean air. It is important toexamine and analyze the performance of desiccant dehumidifiers using the Different pattern in the desiccant wheel that will help to develop a more efficient cooling system. Like ahoneycomb, triangular, sinusoidal.To study different type of material used in desiccant wheeel to adsorp the air moisture. Study different simulation technique used in desiccant.*

Keywords: Dehumidifier; desiccant materials; solid desiccant cooling; Computational fluid dynamics (CFD)

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